Extracellular vesicles in diagnostics and therapy of the ischaemic heart: Position Paper from the Working Group on Cellular Biology of the Heart of the European Society of Cardiology

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Résumé en anglais	Extracellular vesicles (EVs)-particularly exosomes and microvesicles (MVs)-are attracting considerable interest in the cardiovascular field as the wide range of their functions is recognized. These capabilities include transporting regulatory molecules including different RNA species, lipids, and proteins through the extracellular space including blood and delivering these cargos to recipient cells to modify cellular activity. EVs powerfully stimulate angiogenesis, and can protect the heart against myocardial infarction. They also appear to mediate some of the paracrine effects of cells, and have therefore been proposed as a potential alternative to cell-based regenerative therapies. Moreover, EVs of different sources may be useful biomarkers of cardiovascular disease identities. However, the methods used for the detection and isolation of EVs have several limitations and vary widely between studies, leading to uncertainties regarding the exact population of EVs studied and how to interpret the data. The number of publications in the exosome and MV field has been increasing exponentially in recent years and, therefore, in this ESC Working Group Position Paper, the overall objective is to provide a set of recommendations for the analysis and translational application of EVs focussing on the diagnosis and therapy of the ischaemic heart. This should help to ensure that the data from emerging studies are robust and repeatable, and optimize the pathway towards the diagnostic and therapeutic use of EVs in clinical studies for patient benefit.
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[1] http://okina.univ-angers.fr/publications?f%5Bauthor%5D=39000
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[34] http://dx.doi.org/10.1093/cvr/cvx211
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[36] http://www.ncbi.nlm.nih.gov/pubmed/29106545?dopt=Abstract